

Amended Claims With Mark-ups to Show Changes Made

1. (Amended) A method of searching multimedia data comprising:

[a1]]receiving at least one reference multimedia data selected by a user, wherein the reference multimedia data represents a specified multimedia data to be searched; [and]

measuring the similarities of features included in the plurality of reference multimedia data;

determining and updating weights of each feature according to the measured similarities of the features;

measuring the similarities of the feature elements in each feature included in the plurality of reference multimedia data;

determining weights of each feature elements in respective features according to the measured similarities of the feature elements; and

[b1]]searching for the specified multimedia data utilizing features and feature elements included in the plurality of reference multimedia data, in consideration of the updated weights of features and feature elements [of the respective features included in said at least one reference multimedia data, by considering a degree of affect each feature and each feature elements should have in the search].

2. (Amended) A method of claim 1, wherein in [b1],] searching for the specified multimedia data utilizing a combination of features and feature elements of the respective

features included in said at least one reference multimedia data, wherein each feature has a feature weight and each feature element has a feature element weight.

4. (Amended) A method of claim [3] 1, further comprising terminating the search if the user is satisfied with the result of the search, otherwise the method comprising :
 - [f1)]receiving at least one other reference multimedia data selected from among the resultant images of the search, wherein said at least one other reference multimedia data is determined to be similar to the specified multimedia data;
 - [g1)]measuring the similarities of features included in the plurality of reference multimedia data and said at least one other reference multimedia data;
 - [h1)]determining and updating weights of each feature according to the measured similarities of the features [in g1)];
 - [i1)]measuring the similarities of the feature elements in each feature included in the plurality of reference multimedia data and said at least one other reference multimedia data;
 - [j1)]determining and updating weights of each feature elements in respective features according to the measured similarities of the feature elements [in i1]); and
 - [k1)]re-searching for the specified multimedia data utilizing features and feature elements included in the plurality of reference multimedia data and in said at least one other reference multimedia data, in consideration of the updated features weights [in h1]) and feature elements weights [in j1]).

5. (Amended) A method of claim 4, further comprising:

[l1)]receiving at least one dissimilar multimedia data selected from among the resultant images of the search, wherein said at least one dissimilar multimedia data is determined to be dissimilar to the specified multimedia data;

[m1)]measuring the dissimilarities of features included in the plurality of reference multimedia data and said at least one dissimilar multimedia data;

[n1)]measuring the dissimilarities of the feature elements in each feature included in the plurality of reference multimedia data and said at least one dissimilar multimedia data ; and

wherein in [h1)] determining and updating weights of each feature elements in respective features according to the measured dissimilarities of the features according to the measured dissimilarities of the feature elements [in g1 and m1)];

wherein in [j1)] determining and updating weights of each feature elements in respective features according to the measured dissimilarities of the feature elements [in i1) and n1)]; and

wherein in [k1)] re-searching for the specified multimedia data utilizing features and feature elements included in the plurality of reference multimedia data, in said at least one other reference multimedia data and in said at least one dissimilar data, in consideration of the updated features weights [in h1)] and feature elements weights [in j1)].

6. (Amended) A method of claim [3] 1, further comprising terminating the search if the user is satisfied with the result of the search, otherwise the method comprising:

[f2)]receiving at least one dissimilar data multimedia data selected from among the resultant images of the search, wherein said at least one dissimilar data multimedia data is determined to be dissimilar to the specified multimedia data;

[g2)]measuring the dissimilarities of features included in the plurality of reference multimedia data and said at least one dissimilar data multimedia data;

[h2)]determining and updating weights of each feature according to the measured dissimilarities of the features [in g2)];

[i2)]measuring the dissimilarities of the feature elements in each feature included in the plurality of reference multimedia data and said at least one dissimilar data multimedia data;

[j2)]determining and updating weights of each feature elements in respective features according to the measured dissimilarities of the feature elements [in i2)]; and

[k2)]re-searching for the specified multimedia data utilizing features and feature elements included in the plurality of reference multimedia data and in said at least one dissimilar data multimedia data, in consideration of the updated features weights [in h2)] and feature element weights [in j2)].

7. (Amended) A method of claim 2, wherein [in a1)] one reference multimedia data is selected by the user, and [wherein b) comprises] comprising searching for the specified multimedia data utilizing features and feature elements of the respective features included in said

reference multimedia data, wherein each features has a feature weight and each feature element has a feature element weight.

8. (Amended) A method of claim 7, further comprising terminating the search if the user is satisfied with the result of the search, otherwise the method comprising:
 - [a3)] receiving at least one other reference multimedia data selected from among the resultant images of the search, wherein said at least one other reference multimedia data is determined to be similar to the specified multimedia data;
 - [b3)] measuring the similarities of features included in said reference multimedia data and said at least one other reference multimedia data;
 - [c3)] determining and updating weights of each feature according to the measured similarities of the features [in b3)];
 - [d3)] measuring the dissimilarities of the feature elements in each feature included in said reference multimedia data and said at least one other reference multimedia data;
 - [e3)] determining and updating weights of each feature elements in respective features according to the measured similarities of the feature elements [in d3)]; and
 - [f3)] re-searching for the specified multimedia data utilizing features and feature elements included in said reference multimedia data and in said at least one other reference multimedia data, in consideration of the updated features weights [in c3)] and feature element weights [in e3)].

9. (Amended) A method of claim 8, further comprising:

[g3)]receiving at least one dissimilar multimedia data selected from among the resultant images of the search, wherein said at least one dissimilar multimedia data is determined to be dissimilar to the specified multimedia data;

[h3)]measuring the dissimilarities of features included in said reference multimedia data and said at least one dissimilar multimedia data;

[i3)]measuring the dissimilarities of the feature elements in each feature included in said reference multimedia data and said at least one dissimilar multimedia data; and

wherein [in c3)] determining and updating weights of each feature elements in respective features according to the measured dissimilarities of the feature elements [in b3) and h3)];

wherein [in e3)] determining and updating weights of each feature elements in respective features according to the measured dissimilarities of the feature elements [in d3) and i3)]; and

wherein [in f3)] re-searching for the specified multimedia data utilizing features and feature elements included in said reference multimedia data, in said at least one other reference multimedia data and in said at least one dissimilar data, in consideration of the updated features weights [in c3)] and feature element weights [in e3)].

10. (Amended) A method of claim 7, further comprising terminating the search if the user is satisfied with the result of the search, otherwise the method comprising:

[a4)]receiving at least one dissimilar data multimedia data selected from among the resultant images of the search, wherein said at least one dissimilar data multimedia data is determined to be dissimilar to the specified multimedia data;

[b4)]measuring the dissimilarities of features included in said reference multimedia data and said at least one dissimilar data multimedia data;

[c4)]determining and updating weights of each feature according to the measured dissimilarities of the features [in b4];

[d4)]measuring the dissimilarities of the feature elements in each feature included in said reference multimedia data and said at least one dissimilar data multimedia data;

[e4)]determining and updating weights of each feature elements in respective features according to the measured dissimilarities of the feature elements [in d4]]; and

[f4)]re-searching for the specified multimedia data utilizing features and feature elements included in the plurality of reference multimedia data and in said at least one dissimilar data multimedia, in consideration of the updated features weights [in c4)] and feature element weights [in e4)].

13. (Amended) A [data structure] method of constructing a multimedia data comprising:

incorporating a feature information including feature and feature elements of an image; and

incorporating a weight information including weight information of said features and weight information of said feature elements.

14. (Amended) A method of claim 13, wherein the feature and the feature elements are represented by an image characteristic structure comprising:

a global information which represents a feature of a whole image; and
a spatial information which represents a feature of an image region, wherein the image characteristic structure further comprises a weight information which represents the importance of the global information and the spatial information.

Clean Set of Amended Claims

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1. (Amended) A method of searching multimedia data comprising:
receiving at least one reference multimedia data selected by a user, wherein the reference multimedia data represents a specified multimedia data to be searched;
measuring the similarities of features included in the plurality of reference multimedia data;
determining and updating weights of each feature according to the measured similarities of the features;
measuring the similarities of the feature elements in each feature included in the plurality of reference multimedia data;
determining weights of each feature elements in respective features according to the measured similarities of the feature elements; and
searching for the specified multimedia data utilizing features and feature elements included in the plurality of reference multimedia data, in consideration of the updated weights of features and feature elements.

 2. (Amended) A method of claim 1, wherein in searching for the specified multimedia data utilizing a combination of features and feature elements of the respective features included in said at least one reference multimedia data, wherein each feature has a feature weight and each feature element has a feature element weight.

4. (Amended) A method of claim 1, further comprising terminating the search if the user is satisfied with the result of the search, otherwise the method comprising :

receiving at least one other reference multimedia data selected from among the resultant images of the search, wherein said at least one other reference multimedia data is determined to be similar to the specified multimedia data;

measuring the similarities of features included in the plurality of reference multimedia data and said at least one other reference multimedia data;

determining and updating weights of each feature according to the measured similarities of the features;

measuring the similarities of the feature elements in each feature included in the plurality of reference multimedia data and said at least one other reference multimedia data;

determining and updating weights of each feature elements in respective features according to the measured similarities of the feature elements; and

re-searching for the specified multimedia data utilizing features and feature elements included in the plurality of reference multimedia data and in said at least one other reference multimedia data, in consideration of the updated features weights and feature elements weights.

5. (Amended) A method of claim 4, further comprising:

receiving at least one dissimilar multimedia data selected from among the resultant images of the search, wherein said at least one dissimilar multimedia data is determined to be dissimilar to the specified multimedia data;

measuring the dissimilarities of features included in the plurality of reference multimedia data and said at least one dissimilar multimedia data;

measuring the dissimilarities of the feature elements in each feature included in the plurality of reference multimedia data and said at least one dissimilar multimedia data ; and

wherein in determining and updating weights of each feature elements in respective features according to the measured dissimilarities of the features according to the measured dissimilarities of the feature elements;

wherein in determining and updating weights of each feature elements in respective features according to the measured dissimilarities of the feature elements; and

wherein in re-searching for the specified multimedia data utilizing features and feature elements included in the plurality of reference multimedia data, in said at least one other reference multimedia data and in said at least one dissimilar data, in consideration of the updated features weights and feature elements weights.

6. (Amended) A method of claim 1, further comprising terminating the search if the user is satisfied with the result of the search, otherwise the method comprising:

receiving at least one dissimilar data multimedia data selected from among the resultant images of the search, wherein said at least one dissimilar data multimedia data is determined to be dissimilar to the specified multimedia data;

measuring the dissimilarities of features included in the plurality of reference multimedia data and said at least one dissimilar data multimedia data;

A2
determining and updating weights of each feature according to the measured dissimilarities of the features;

measuring the dissimilarities of the feature elements in each feature included in the plurality of reference multimedia data and said at least one dissimilar data multimedia data;

determining and updating weights of each feature elements in respective features according to the measured dissimilarities of the feature elements; and

re-searching for the specified multimedia data utilizing features and feature elements included in the plurality of reference multimedia data and in said at least one dissimilar data multimedia data, in consideration of the updated features weights and feature element weights.

7. (Amended) A method of claim 2, wherein one reference multimedia data is selected by the user, and comprising searching for the specified multimedia data utilizing features and feature elements of the respective features included in said reference multimedia data, wherein each features has a feature weight and each feature element has a feature element weight.

8. (Amended) A method of claim 7, further comprising terminating the search if the user is satisfied with the result of the search, otherwise the method comprising:

receiving at least one other reference multimedia data selected from among the resultant images of the search, wherein said at least one other reference multimedia data is determined to be similar to the specified multimedia data;

A2
measuring the similarities of features included in said reference multimedia data and said at least one other reference multimedia data;

determining and updating weights of each feature according to the measured similarities of the features;

measuring the dissimilarities of the feature elements in each feature included in said reference multimedia data and said at least one other reference multimedia data;

determining and updating weights of each feature elements in respective features according to the measured similarities of the feature elements; and

re-searching for the specified multimedia data utilizing features and feature elements included in said reference multimedia data and in said at least one other reference multimedia data, in consideration of the updated features weights and feature element weights.

9. (Amended) A method of claim 8, further comprising:

receiving at least one dissimilar multimedia data selected from among the resultant images of the search, wherein said at least one dissimilar multimedia data is determined to be dissimilar to the specified multimedia data;

measuring the dissimilarities of features included in said reference multimedia data and said at least one dissimilar multimedia data;

measuring the dissimilarities of the feature elements in each feature included in said reference multimedia data and said at least one dissimilar multimedia data; and

A2
wherein determining and updating weights of each feature elements in respective features according to the measured dissimilarities of the feature elements;

wherein determining and updating weights of each feature elements in respective features according to the measured dissimilarities of the feature elements; and

wherein re-searching for the specified multimedia data utilizing features and feature elements included in said reference multimedia data, in said at least one other reference multimedia data and in said at least one dissimilar data, in consideration of the updated features weights and feature element weights.

10. (Amended) A method of claim 7, further comprising terminating the search if the user is satisfied with the result of the search, otherwise the method comprising:

receiving at least one dissimilar data multimedia data selected from among the resultant images of the search, wherein said at least one dissimilar data multimedia data is determined to be dissimilar to the specified multimedia data;

measuring the dissimilarities of features included in said reference multimedia data and said at least one dissimilar data multimedia data;

determining and updating weights of each feature according to the measured dissimilarities of the features;

measuring the dissimilarities of the feature elements in each feature included in
AJ said reference multimedia data and said at least one dissimilar data multimedia data;

determining and updating weights of each feature elements in respective features according to the measured dissimilarities of the feature elements; and

re-searching for the specified multimedia data utilizing features and feature elements included in the plurality of reference multimedia data and in said at least one dissimilar data multimedia, in consideration of the updated features weights and feature element weights.

A3 13. (Amended) A method of constructing a multimedia data comprising:

incorporating a feature information including feature and feature elements of an image; and

incorporating a weight information including weight information of said features and weight information of said feature elements.

14. (Amended) A method of claim 13, wherein the feature and the feature elements are represented by an image characteristic structure comprising:

a global information which represents a feature of a whole image; and

A³ a spatial information which represents a feature of an image region, wherein the image characteristic structure further comprises a weight information which represents the importance of the global information and the spatial information.

C. Please add new claims 21-26 as follows:

21. (New) A method comprising:

searching for a target image based on search criteria, wherein searching for the target image comprises:

inputting a first image that is similar to the target image;

inputting a second image that is dissimilar to the target image; and

correlating the first image and the second image to construct the search criteria.

22. (New) The method of claim 21, wherein the correlating comprises:

identifying a feature that is common between the first image and the second image; and

decreasing the weight of the identified feature in the search criteria.

23. (New) The method of claim 21, wherein the correlating comprises:

identifying a feature that is not common between the first image and the second image; and

increasing the weight of the identified feature in the search criteria.

24. (New) An apparatus configured to:

search for a target image based on search criteria, wherein searching for the target image comprises:

inputting a first image that is similar to the target image;
inputting a second image that is dissimilar to the target image; and
correlating the first image and the second image to construct the search criteria.

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25. (New) The apparatus of claim 24, wherein the correlating comprises:
identifying a feature that is common between the first image and the second
image; and
decreasing the weight of the identified feature in the search criteria.
26. (New) The apparatus of claim 24, wherein the correlating comprises:
identifying a feature that is not common between the first image and the second
image; and
increasing the weight of the identified feature in the search criteria.
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